






ACTIVITY 16






CHOOSING A BETTER FUTURE

This activity is designed to illustrate how students' choices today can impact future air quality. It lets them trace how the choices of earlier generations have increased air pollution over the last 40 years. It is related to the "Making Decisions" warm-up. Related activities include "Lifestyles and the Environment" and "Deciding To Clean the Air."

CRITICAL OBJECTIVES

-  Appreciate the differences between lifestyles today and 40 years ago
-  Realize that the lifestyle choices made by previous generations have impacted the current air quality and air pollution problems
-  Understand the increase in demand for selected manufactured goods, automobiles, and energy sources over the last 40 years and its impact on air pollution
-  Determine practical and useful alternatives for reducing negative impacts
-  Understand the cumulative nature of pollution problems

SKILLS

-  Researching
-  Comparing ideas and situations
-  Considering alternatives
-  Making decisions
-  Making oral presentations

GUEST PRESENTERS

Guest presenters could include conservationists, economists, environmental scientists, or EPA environmental protection specialists.

BACKGROUND

Air pollution levels have grown over the years because our demand for manufactured goods, automobiles, and energy, among other things, has grown. Overall, demand for goods and services continues to increase. Air pollution is an important concern because it causes sickness and damage to property and the environment. In order to ensure that we have the resources needed to sustain life into the future, measures need to be taken now to cure some of the problems we created over time. This will involve sorting out conflicts and making choices between the things we need and the things we want. (See reading materials on "Air Pollution," "Health Effects," and "Indoor Air Quality.")



RELATED WARM-UPS

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REFER TO READING MATERIALS

"Air Pollution"
"Health Effects"
"Indoor Air Quality"

TARGET GRADE LEVEL

7th - 12th

DURATION

2 class periods (80-90 minutes), plus library research outside class

VOCABULARY

Demand
Energy
Manufactured goods
Natural gas

MATERIALS

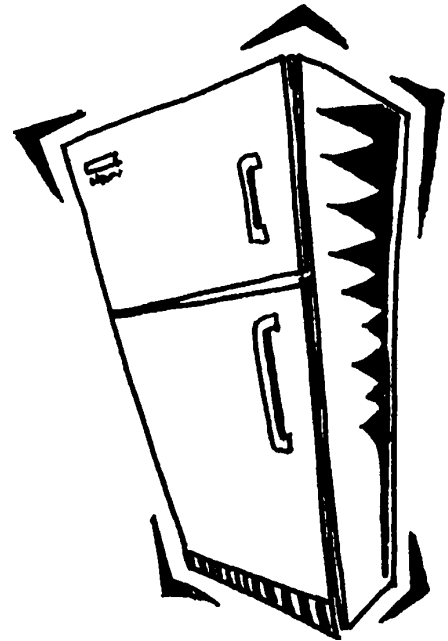
Chalk
Chalkboard



WHAT TO DO

Class #1

1. Start by asking students what they think life was like when their parents were children. What were their houses like? How many cars did they have? What was the traffic like? Do you think they worried about air pollution? Why (or why not)? What about your life is different than your parents'? What made things change? How did the choices your parents made influence how you live today? Explain briefly that our lives are influenced by a constant series of choices—some made by each of us as individuals, some made by our parents, and many made by people we don't even know. The combinations of all of these choices determine the quality of each of our lives.
2. The combination of choices made by individual citizens, business and industry owners, and government over the years has had a sizeable impact on the quality of the air we breathe and the air pollution problems the world faces today. Ask the class to name a few of these choices.
3. Explain that the class is going to look more closely at how things have changed since their parents were children, the air pollution problems that are the result of those changes, and what options we have for fixing those problems so the environment is healthy for future generations.
4. Divide the class into five teams. Assign each team a topic: refrigerators, computers, automobiles, electricity, natural gas.
5. Assign the teams to do research in their topic area to answer four questions: (1) How has the need and demand for it changed in the last 40 years? (2) How was the demand met? (3) What, if any, impact has that had on the environment, on the level of air pollution in particular, in the community (the nation) (the world)? (4) What alternatives are available for reducing the impact (or reversing the effect)?
6. Allow teams to organize themselves and distribute the work. Suggest that each team appoint a representative who will be responsible for making a short (5-minute) presentation during another class (give specific date but allow several days preparation time) to summarize the team's research findings. Encourage the teams to interview




their parents (and, possibly, grandparents), local government officials, and business owners in addition to doing research in the library.

7. Give students the remainder of the class to work together and assign them to continue work outside of class in order to be prepared for the second class.

Class #2

1. Have each team representative present the research findings from his or her team. Following each, open discussion to the class and allow students to suggest and discuss environmental (air pollution) impacts and options for improving the situation that may not have been mentioned in the presentation.
2. After all presentations have been made and discussed, have students make a list of the most useful and practical measures for reducing air pollution (at home, at school, in the community, in the nation, in the world). Record these on the chalkboard. Ask how students think the community will be different when their children are in school? Have students discuss which of these measures they will take at home and at school. Also discuss which measures students could help get started in the community (in the Nation) (in the world). Explore how they would accomplish that.

SUGGESTED EXTENSIONS (OPTIONAL)

-  Have students track, using the newspaper or television news, real air pollution-related decisions made by government and industry. Set aside time periodically to discuss these actions and their potential impact on improving the environment in the future.

SUGGESTED READING

Becklake, John. *Thinking for the Future: Pollution*. New York: Gloucester Press (1990).

Miller, Willard E. *Environmental Hazards: Air Pollution, A Reference Handbook*. Santa Barbara, CA: ABC-Clío (1989).

Rock, Maxine. *The Automobile and the Environment*. New York: Chelsea House Publishers (1992).

Santrey, Laurence. *Conservation and Pollution*. Troll Associates (1985).

